WHAT IS CLAIMED IS:

1. A liquid crystal display device comprising:

a convex portion selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode contacting the second region of the pixel electrode; wherein:

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is greater than or equal to 3.0 μm, and less than or equal to 4.5 μm; and

the height of the convex portion is greater than or equal to 4.4% of the distance, and less than or equal to 15.6% of the distance.

2. A liquid crystal display device comprising:

a convex portion selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode contacting the second region of the pixel

electrode; wherein:

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion is less than or equal to 15.6% of the distance.

3. A liquid crystal display device comprising:

a convex portion selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode contacting the second region of the pixel electrode; wherein:

the distance from an opposing electrode formed on a second substrate to the third region is less than or equal to 3.0 μm; and

the height of the convex portion is less than or equal to 6.7% of the distance.

4. A liquid crystal display device comprising:

a convex portion on a level surface in a first substrate;

a first region of a pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode formed on the level surface; wherein:

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is greater than or equal to 3.0 μm, and less than or equal to 4.5 μm; and

the height of the convex portion is greater than or equal to 4.4% of the distance, and less than or equal to 15.6% of the distance.

5. A liquid crystal display device comprising:

a convex portion on a level surface in a first substrate;

a first region of a pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode formed on the level surface; wherein:

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion is less than or equal to 15.6% of the distance.

6. A liquid crystal display device comprising:

a convex portion on a level surface in a first substrate;

a first region of a pixel electrode formed overlapping with an upper edge portion of the convex portion;

a second region of the pixel electrode formed in a side portion of the convex portion; and

a third region of the pixel electrode formed on the level surface; wherein:

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion is less than or equal to 6.7% of the distance.

7. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height, in the pixel electrode;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height; and

a third region of the pixel electrode contacting the second region of the pixel electrode; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is greater than or equal to 3.0 μm, and less than or equal to 4.5 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are greater than or equal to 4.4% of the distance, and less than or equal to 15.6% of the distance.

8. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, formed on a level surface on a first substrate;

a first region of a pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height;

a third region of the pixel electrode formed on the level surface; and

an opposing electrode formed on a second substrate; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from the opposing electrode formed on the second substrate to the third region of the pixel electrode is greater than or equal to 3.0 μm, and less than or equal to 4.5 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are greater than or equal to 4.4% of the distance, and less than or equal to 15.6% of the distance.

9. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height, in the pixel electrode;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height; and

a third region of the pixel electrode contacting the second region of the pixel electrode; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are less than or equal to 15.6% of the distance.

10. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, formed on a level surface on a first substrate;

a first region of a pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height;

a third region of the pixel electrode formed on the level surface; and

an opposing electrode formed on a second substrate; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from the opposing electrode formed on the second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are less than or equal to 15.6% of the distance.

11. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, selectively formed below a pixel electrode formed on a first substrate;

a first region of the pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height, in the pixel electrode;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height; and

a third region of the pixel electrode contacting the second region of the pixel electrode; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from an opposing electrode formed on a second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are less than or equal to 6.7% of the distance.

12. A liquid crystal display device comprising:

a convex portion having a first height, and a convex portion having a second height, formed on a level surface on a first substrate;

a first region of a pixel electrode formed overlapping an upper edge portion of the convex portion having the first height, and an upper edge portion of the convex portion having the second height;

a second region of the pixel electrode formed in a side portion of the convex portion having the first height, and a side portion of the convex portion having the second height;

a third region of the pixel electrode formed on the level surface; and

an opposing electrode formed on a second substrate; wherein:

the convex portion having the first height is relatively higher than the convex portion having the second height;

the distance from the opposing electrode formed on the second substrate to the third region of the pixel electrode is less than or equal to 3.0 μm; and

the height of the convex portion having the first height and the height of the convex portion having the second height are less than or equal to 6.7% of the distance.

13. A liquid crystal display device comprising:

a pixel electrode formed on: a convex portion formed on a level surface on a first substrate; a side face of the convex portion; and the level surface; and

an opposing electrode formed on a second substrate.

14. A liquid crystal display device according to any one of claims 1 to 13, wherein the width over which the first region of the pixel electrode and the convex portion overlap is greater than or equal to 0.5 μm.

15. A liquid crystal display device according to any one of claims 1 to 13, wherein the width over which the first region of the pixel electrode and the convex portion overlap is greater than or equal to 1.0 μm.

16. A liquid crystal display device according to any one of claims 1 to 15, wherein the liquid crystal display device has the first regions of the mutually adjacent pixel electrodes in the upper edge portions of the convex portions, and the distance between the first regions of the pixel electrodes is less than or equal to 4.0 μm.

17. A liquid crystal display device according to any one of claims 1 to 15, wherein the liquid crystal display device has the first regions of the mutually adjacent pixel electrodes in the upper edge portions of the convex portions, and the distance between the first regions of the pixel electrodes is less than or equal to 2.0 μm.